Introduction: The Politics of Open Access — Decolonizing Research or Corporate Capture?

Kate Meagher

ABSTRACT

This introductory article looks beyond the conventional framing of open access (OA) debates in terms of paywalls and copyrights, to examine the historical processes, institutional and digital infrastructures, and political dynamics shaping the effects of OA in development research. From a historical perspective, it focuses on tensions and crises in the relationship between scholarly and corporate publishing ecosystems. The spectrum of open access models is also examined, with a focus on green, gold, diamond and black, which tend to obscure the underlying scholarly publishing infrastructures that shape the parameters of openness and access. A closer look at distinctive for-profit and non-profit OA infrastructures reveals the inequitable and often neo-colonial effects of for-profit models on Southern researchers and the social sciences. Accounts of the politics of OA highlight processes of political capture of the OA agenda by Northern corporate and state interests and draw attention to alternative interest coalitions which are more suited to prioritizing the global public good over private profit. Reflecting on the requirements of OA in low-resource environments, this article echoes calls for more equitable forms of openness and access in development research ecosystems, with a view to decolonizing as well as advancing OA.

INTRODUCTION

Debates about scholarly open access (OA) are reaching fever pitch in the context of digitization, the COVID-19 pandemic, and the January 2021 kick-off of Europe's OA initiative known as Plan S. Active discussions have been

ongoing for a few years across a range of scholarly communications blog sites, such as *The Scholarly Kitchen*, *SciDev.Net*, *Sustaining the Knowledge Commons*, and the LSE *Impact of Social Sciences* blog, among others, where important expertise from outside the social sciences, including information science and digital publishing, adds depth to ongoing debates. Layered on top of these have been a growing number of articles and special issues in academic journals. Recently, *Geoforum* has taken a hard look at how OA is shaped by capitalist power relations in the scholarly publishing industry,[1] while *Nature* (Calloway, 2020; Van Noorden, 2020b) has published a series of articles on how the COVID-19 pandemic has advanced the aims of OA in scholarly journals.

Yet, the richness of the discussion has often been fractured by disconnections between OA fora and scholarly journals. This has contributed to the fragmentation and polarization of debates about the merits and best methods of OA in contemporary academia, often generating more heat than openness. The variety of recent OA initiatives has also tended to exacerbate disputes about the best way forward. In the process, tensions have emerged that reveal a more equivocal relationship between forms of OA and the global public good. On the one hand, public interest concerns have led dozens of journals and academic publishers to make coronavirus research free to read, including Cambridge University Press, Oxford University Press, the *British Medical Journal*, as well as the big five academic publishers — Elsevier, Sage, Springer Nature, Taylor & Francis, and Wiley (Calloway, 2020). On the other hand, in July 2020, public interest goals led the European Research Council (ERC) to withdraw from Plan S owing to its lack of attention to equity concerns among less advantaged scholars and research communities (ERC, 2020).

This special collection on open access and development research will look beyond scholarly communications barriers and ideological red herrings to consider the deeper historical processes and equity concerns underlying OA debates in development research. Using a development lens, this set of articles and opinion pieces brings together a wider range of scholarly interests and reflections on models of OA emanating from the global South as well as the global North. Collectively, they illuminate the different needs and perspectives of scholars in different parts of the world, shaped by disciplinary and regulatory as well as regional concerns. In place of moral imperatives and 'yes/no' options, more penetrating questions are raised about OA: open for whom and by whom? Access to what and through what systems? In the process, these scholarly pieces seek to uncover the ways in which the framing of OA debates has not only presented options, but has also concealed alternatives, created false friends and separated natural allies. By challenging prevailing models and reflecting on how access can be made

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1. See the themed collection in *Geoforum* 112 (June 2020); also Sengupta (2020).

more open in low-resource environments, this special collection directs attention to more equitable forms of openness and more democratic forms of access in development research ecosystems. In the process, we seek ways not only of advancing OA, but of decolonizing it. This Introduction will provide a background to contemporary OA debates by examining key historical, institutional, infrastructural and policy issues that have informed the trajectory of OA in scholarly publishing and development research.

HISTORY MATTERS: HISTORICAL LEGACIES, DIGITAL PUBLISHING AND BIG DEALS

Understanding the history of the OA debate in scholarly publishing is key to deciphering the forces driving various aspects of the debate and shaping particular OA models. Awareness of the key historical moments underpinning the rise of OA helps to cut through legitimating narratives that obscure the strengths and weaknesses of various models of OA. As the eminent open science advocate Leslie Chan (2019) points out, 'Openness, when decontextualized from its historical and political roots, could become as exploitative and oppressive as the legacy system it seeks to displace'. Three historical issues have been central to framing the OA debate: the history of scholarly journals, the digitization of scholarly publishing, and the journal pricing crisis.

The institutional legacies that shape scholarly publishing are an important but poorly integrated part of OA debates, despite the fact that journals date from long before their association with corporate publishers. As highlighted by Kamerlin et al. (this collection), academic journals date back over 300 years, and evolved to structure knowledge sharing within non-profit, disciplinary frameworks of scholarly societies and academic bodies. Their engagement with corporate publishers only emerged from the mid-20th century, amid academic funding cuts and corporate takeovers of smaller publishers, particularly affecting the social sciences (Larivière et al., 2015). Scholarly ecosystems still persist in the form of comparatively low subscription prices for independent academic journals, especially in the social sciences and humanities, and internal norms of free scholarly content, and academic labour for reviewing and editing provided to the journal free of charge. These scholarly ecosystems are also associated with knowledge hierarchies, which some see as a framework for expertise and quality assurance, while others associate them with exclusion and neo-colonial systems of knowledge production (see Kamerlin et al., Faciolince and Green, and Moore, this collection).

Pressures for OA are associated with the digitization of publishing in the 1990s, which created the possibility of a 'global knowledge commons' for the more open and equitable dissemination of scholarly research (Gray, 2006; Morrison and Rahman, 2020; Poynder, 2019). For cyber-optimists,

digital technologies offer collaborative, non-market approaches to scholarly publishing, releasing it from the grip of corporate publishers and breaking down the knowledge hierarchies and high paywalls that lock resource-poor scholars out of subscription journals (Poynder, 2019; see Faciolince and Green, Moore, this collection). Yet the ideal of a digital knowledge commons has been confronted by the reality of corporate power. Academic publishing is not just a scholarly pursuit; it is a US\$ 25 billion a year industry, dominated by five major corporate publishers (Elsevier, Sage, Springer, Taylor & Francis, and Wiley), which collectively account for over half of the titles indexed in Clarivate Analytics (previously known as Web of Science), and which are intent on shaping OA publishing according to their own interests (Bosch et al., 2019; Larivière et al., 2015; Mirowski, 2018; Morrison and Rahman, 2020: 5; Posada and Chen, 2018; Shorish and Chan, 2019).

Despite a widespread sense that digitization should reduce the cost of scholarly communication, research institutions have faced an affordability crisis triggered by the escalating cost of corporate journal subscriptions in the face of declining library budgets. Corporate subscriptions routinely involve the bundling of journals into assortments known as 'Big Deals', which include annual price increases hardwired into multi-year contracts (Bergstrom, 2014; Bosch et al., 2019; MacLeavy et al., 2020). Cambridge mathematician Timothy Gowers (2014) observed that between 2001 and 2009, as production costs declined, the mean expenditure on journals in university libraries in the United States rose by 82 per cent while expenditure on books stagnated (see also Shu et al., 2018: 786).[2] Boycotts and cancellations of Big Deals began to gather pace after the launch in 2012 of the 'Cost of Knowledge' campaign against Elsevier, witnessing the withdrawal from Big Deals by research consortia in Hungary and Finland, as well as the Max Planck Institute in Germany, Lund University in Sweden and a number of major US universities, culminating in the dramatic termination of the Big Deal between Elsevier and the University of California in February 2019 (Bergstrom, 2014; Gowers, 2014; Hiltzik, 2019; Larivière et al., 2015: 13; Lund University, 2018).

Yet, the apparent threat of OA and Big Deal boycotts has done little to harm the profits of the major academic publishers. Profit margins of the top corporate publishers have continued to rise even after the shift to OA, reaching between 20 per cent and over 30 per cent per year among some of the top publishers. This puts scholarly publishing among the most profitable industries in the world, comparable to Walmart and Amazon (Hiltzik, 2019; Larivière et al., 2015; Posada and Chen, 2018; Shu et al., 2018). Far from being reined in by OA, corporate publishers have become key players in shaping the OA agenda. This corporate coup has been accomplished by appearing to make common cause with OA activists, research librarians,

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2. To add insult to injury, the price of Big Deals varies widely among institutions, protected in some cases by mandatory confidentiality clauses (Bergstrom, 2014).

independent practitioners and researchers, and scholars from low-resource environments, but more questions need to be raised about whether they share the same interests.

OPEN ACCESS JOURNALS: GREEN, GOLD, DIAMOND AND BLACK

The parameters of OA debates have been further muddled by a profusion of OA options involving differing access, financing and licensing arrangements. These are framed as a colour-coded selection of OA models which often conceal more than they reveal (Barnes, 2018; Schmitz, 2019; Taubert et al., 2019). Key options include green, gold, diamond/platinum and black OA. Policy endorsements and definitional sleight of hand have promoted gold OA over other models, without much clarity about the wider implications of these models and whose interests are served.

For the past few years, debate has been focused around green vs gold OA. Green OA is presented as the transitional poor cousin to gold because of its pre-publication format and embargo period, with little attention to the fact that green OA relies on a predominantly public infrastructure of university and public research repositories. As a number of our contributions explain, green OA is the favoured model of a range of publicly funded OA systems, such as the Latin American repository network, LA Referencia, or the Confederation of Open Access Repositories (COAR) (see Shearer and Becerril-García,[3] Irawan et al., Berger, this collection). By contrast, gold OA is widely promoted as the gold standard of OA publishing, owing to its immediate openness and removal of copyright barriers to sharing or re-use.

Unfortunately, informed debate has been clouded by ambiguities surrounding the definition of gold OA. In many major policy initiatives, gold OA has been defined in ways that disguise the difference between the 'author-pays' form of gold OA, and a 'no-pay' model of full OA, also known as diamond or platinum OA[4] (Fuchs and Sandoval, 2013; Hall, 2012; Suber, 2012: 138). Major policy pronouncements such as the open access decision of Germany's Bundesrat in 2007, the UK's 2012 Finch Report on Open Access, and Europe's Plan S initiative all use a very broad definition of gold OA, namely publication costs 'paid upfront' rather than through subscriptions. This obscures through definitional vagueness the vital issue of whether gold OA entails Article Processing Charges (APCs), which make articles free to read, but not free to publish. It also effectively suppresses clear consideration of a pre-existing distinction between gold OA and

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3. This contribution was withdrawn owing to terms of Open Access. It can be accessed here: https://zenodo.org/record/4423997#.X_cbUeBybfY.

4. The term diamond OA will be used here, since it is more widely used in contemporary OA literature, but the original term, platinum OA, will be referenced where relevant in order to avoid confusion when drawing on literature that uses the original term.

diamond OA (previously known as platinum) in which articles are free to read *and* free to publish. The shift in the name of the diamond/platinum model only increases the confusion.

Tom Wilson, information science scholar and publisher of the pioneering electronic journal *Information Research*, highlighted the danger of:

> perpetuating the myth that the only form of open access publishing is that made available through the commercial publishers, by author charging. This is why I distinguish between open access through author charging, which is what the Gold Route is usually promoted as being (and which all official bodies from the NIH to the UK research councils assume as 'open'), and the Platinum Route of open access publishing which is free, open access to the publications and no author charges. In other words the Platinum Route is open at both ends of the process: submission and access, where as the Gold Route is seen as open only at the access end. (Wilson, 2007a; see also Tottossy and Antonielli, 2012; Wilson, 2010)

The elimination of diamond/platinum OA from major policy debates has been so effective that recent publications on the subject frequently refer to diamond OA as a new model (Normand, 2018; Raju, 2017). Yet, this distinct form of OA existed long before gold OA, and remains the model used by the majority of OA journals (Morrison and Rahman, 2020: 10). In 2013, only 32 per cent of OA journals listed in the Directory of Open Access Journals (DOAJ) charged APCs (Fuchs and Sandoval, 2013). Despite widespread pressures to adopt gold OA, to date over two-thirds of OA journals listed in DOAJ still do not charge APCs (Morrison, 2018).

To clarify, diamond OA offers immediate online access to the published version of an article, while covering the costs of non-profit publication through direct institutional funding or scholarly society subventions to journals, with no charge to authors or readers (Fuchs and Sandoval, 2013). Conversely, gold OA relies on APCs, effectively shifting journals from a pay-to-read to a pay-to-publish model, which poses serious problems for authors in less well-funded disciplines or countries. While staunch OA activists have joined with the corporate publishing lobby in support of gold OA, serious concerns have been raised about the implications for scholars in the global South, and researchers in the social sciences and humanities. As then Vice President of the American Council of Learned Societies, Steven Wheatley (2015) put it, less well-funded researchers simply don't have enough gold to comply with gold OA (see also Fuchs and Sandoval, 2013; Harrington, 2019; International African Institute, 2019). In the field of development in particular, the potential for gold OA to bake-in new inequalities that disadvantage both development research in general and scholars from the global South in particular, is seriously problematic. While fee waivers have been created for developing-country researchers, these have been described by one critic as 'academic charity' — hardly a sound basis for the decolonization of knowledge — and even the global academic publishing association, STM, has admitted that the waivers are poorly coordinated and difficult to access (Pooley, 2020; Powell et al., 2020: 3). A number of contributions

in this collection examine the potential and limitations of gold OA for researchers in the global South.

At the opposite end of the spectrum is the unsavoury model known as black OA (Barnes, 2018; Taubert et al., 2019). Black OA refers to the OA underworld of predatory journals and pirate OA platforms like SciHub. Viewed by some as the liberating work of 'disruptors', others argue that black OA exploits the epistemic exclusion of Southern scholars. Inequities in reading as well as publishing access, and in scholarly and editorial infrastructure, drive developing-country scholars disproportionately into the arms of black OA, as indicated in the contributions by Berger and by Sagemüller et al. in this collection.

Colour-coded OA models tend to obscure a further issue in need of more open debate: copyright licences. OA activists and major OA initiatives like Plan S favour the most liberal copyright licence, such as a Creative Commons Attribution licence (CC-BY) or its equivalent. CC-BY licences allow the author to retain copyright, rather than signing it over to publishers who then sell it back to the scholarly community through subscription journals — a practice denounced as 'privatizing publicly funded research'. As Poynder (2019: 69) points out, however, CC-BY licences 'allow *anyone*' to re-use, redistribute or adapt the content for academic or commercial purposes. This allows 'better resourced researchers in the [global] North who have superior computing facilities to mine and analyse data' of Southern scholars, and to publish the results themselves, as well as to translate or republish an article for sale in any context without the author's permission or oversight. It also allows commercial firms to capture and monetize research from across the world without any constraints — in effect, allowing a much wider spectrum of publishers and commercial actors to privatize publicly funded research (Anderson, 2014, 2020; Poynder, 2019: 10). As Mirowski (2018: 178) notes, OA advocates insist that publicly funded academic research should be made available for free, yet they raise no issue when publicly funded research is privatized by corporations, and sold back to the public for substantial profits. For example, the Moderna vaccine against COVID-19 received almost US$ 1 billion in US public funding but is defended for selling doses back to the US government for a profit on the grounds that the valuable externalities of publicly funded research and innovation should be rewarded (Sagonowsky, 2020; Sherkow et al., 2020; Wolitz, 2019; Wu, 2020).

OPEN ACCESS INFRASTRUCTURES: FOR PROFIT, NON-PROFIT AND UNABLE-TO-PROFIT

A growing number of scholars from the open science movement have expressed frustration about the fixation of OA debates with journals (Chan, 2019; Gray, 2006; Okune et al., 2018). In terms of the colour-coded OA classification, the focus on journals is seen as something of a 'red herring'.

Critical open science scholars, such as Leslie Chan, Angela Okune and others, argue that the preoccupation with journals obscures the underlying governance infrastructures in which these journals are embedded, and the role of power in shaping them. They shift attention from increasingly sterile debates about acceptable forms of 'openness' and 'access', to more evidentiary debates about how particular forms of openness are created and regulated, and the power relations that determine what is and is not being accessed (Chan, 2019; Okune et al., 2018; Shorish and Chan, 2019).

While some OA scholars adhere to a utopian faith in the internet as a global knowledge commons, Chan (2014) and others scrutinize the 'new organizational forms' enabled by digital technologies — the specific digital systems, platforms, standards and connections that regulate resource and knowledge flows within OA publishing. Moral injunctions about openness are replaced by analyses of whether particular forms of OA address or reproduce inequities in knowledge production (Morrison and Rahman, 2020; Shorish and Chan, 2019). As Angela Okune and co-authors (2018: 6) explain, attention is directed to 'how knowledge infrastructures (many of which are assumed to be neutral or apolitical) may in fact replicate and reinforce the gendered, raced and other socio-political imbalances that exist within existing systems of knowledge production'. In place of arguments about the importance of 'openness', debates focus on the technical arrangements that underpin particular OA ecosystems, the regulatory standards embedded in them, and the political, economic and scholarly interests that drive and benefit from them.

A number of the papers presented in this special collection look beyond discussions of green vs gold to reflect on different types of OA infrastructures. Two broad types can be distinguished: for-profit and non-profit, while a third category reflects on experiences of openness in scholarly contexts in which digitization is still patchy, research funding is limited, and access to digital ecosystems is as problematic as access to scholarly journals.

Debates about for-profit OA infrastructures centre on their role in capturing rather than liberating scholarly publishing, and in exacerbating rather than reducing epistemic inequality between North and South. From a development perspective, critical commentators raise concerns about the role of for-profit OA in the neoliberal transformation of scholarly publishing through the development of proprietary end-to-end digital platforms owned by or affiliated with large corporate publishers (Büscher, 2020; Chan, 2014; MacLeavy et al., 2020; Mirowski, 2018; Shorish and Chan, 2019: 2). Terms such as 'scholarly enclosures', 'surveillance capitalism', and 'the platformization of scholarly infrastructure' are used to describe the use of for-profit OA in shifting control of knowledge production from academic to market imperatives (Chan, 2019; MacLeavy et al., 2020; Mirowski, 2018: 172, 188; Posada and Chen, 2018).

Attention is also drawn to the Eurocentric standardizing and universalizing of knowledge production in for-profit OA initiatives through citation

metrics, language requirements and Best Practice guidelines in ways that risk turning the global knowledge commons into a global knowledge divide (Morrison and Rahman, 2020: 24; Sengupta, 2020; Shorish and Chan, 2019: 3). Digital ecosystems for managing OA publishing tend to restrict participation to those who can meet stringent technical conditions, ignoring local constraints with regard to resources, capacity, infrastructure, or familiarity with technical requirements. Fatima Arkin (2018) shows that even the iconic OA platform, the DOAJ, screens out large numbers of Southern OA journals and contributions based on technical and copyright requirements which do not necessarily reflect academic quality. The Research 4 Life coalition, formed to promote scholarly OA in the global South, only indexes journals that meet DOAJ criteria. In addition to the financial barriers imposed by the author-pays requirements of gold OA, the proliferation of specific technical, software and copyright standards in OA platforms threatens to silence alternative views from the global South. In the process, 'openness' could be turned into a one-way flow of knowledge and rules from North to South, embedding neo-colonialism at the heart of OA by denying Southern participants a voice in shaping knowledge production (Morrison and Rahman, 2020; Sengupta, 2020).

The Eurocentric monocropping tendencies of for-profit OA infrastructures tend to eclipse alternative OA systems better adapted to the specific needs of less advantaged regions, such as AmeliCA, African Journals Online, or Bioline International (Arkin, 2018; Morrison and Rahman, 2020: 20; Shorish and Chan, 2019). This special collection draws attention to the existence of these alternative scholarly OA infrastructures, which often emanate from the global South and are geared to meet the varied needs and interests of scholars in diverse and often low-resource environments. The contributions in this collection by Shearer and Becerril-García, and by Berger, reflect on the best-known example, Latin America's AmeliCA, which relies on non-commercial OA ecosystems involving digital repositories, green or diamond OA arrangements, and open-source or locally available software (Aguado-López and Becerril-García, 2020; Arkin, 2018; Morrison and Rahman, 2020: 5). In a recent blog, Aguado-López and Becerril-García (2020) argue that 'Investing directly in non-profit open infrastructure including journals, platforms, directories, services, tools and ultimately academic communities, is the best way to keep these resources focused on the needs of researchers'. As noted by a number of commentators and contributors, the diversion of funding within developing regions to finance author-pays systems of gold OA risks undermining decades-old non-profit forms of OA publishing in Latin America as well as other nascent non-profit OA ecosystems which are better suited to the needs of the global South (Aguado-López and Becerril-García, 2020; Morrison and Rahman, 2020: 27).

Across much of Africa, OA debates are less about specific types of OA infrastructure than about the terms of access to any digital scholarly infrastructure, as discussed in the pieces by Okune et al., Asare et al.,

and Faciolince and Green (this collection). As of 2011, African scholars produced only 1.1 per cent of articles in the Web of Science data base, compared to 66.4 per cent produced by scholars from North America and Europe (Ojanpera et al., 2017: 40). Widespread lack of research funding, information and effective internet access continue to close off access despite the expansion of OA publishing. Some argue that the solution lies in more openness, more information, and more supportive initiatives such as workshops, copyright awareness and fee waivers (Nobes and Harris, 2019; Powell et al., 2020). Others have argued that the severe marginalization of African scholars within the global knowledge economy and publishing ecosystems cannot be resolved by just doubling down on digital openness (Bezuidenhout et al., 2017; Gray, 2006: 3). As Bezuidenhout et al. (2017: 45) explain, discussions about open access and open science often 'push towards more data accumulation, more openness and more internationalization, without however considering the local conditions under which such openness can help researchers'. The detachment of OA initiatives such as Plan S from African research realities is reflected in the willingness of research funders to finance APCs for African researchers, but not the computer hardware, membership fees or wifi connections that would allow them to participate in the digital research fora their articles would feed into (Bezuidenhout et al., 2017: 45).

POLICY PROCESS AND POLICY PARADOXES

In addition to directing attention to infrastructures, constructive engagement in OA debates calls for more direct attention to the policy process behind the emergence of OA arrangements. OA infrastructures are shaped by a range of policy initiatives and powerful actors, often concealing diverse objectives behind the quest for 'openness' (Morrison and Rahman, 2020: 6). Plan S is a prime example. It is supported by 17 national funders and, until recently, two EU bodies, as well as five charitable and international funders, including the Bill and Melinda Gates Foundation and the World Health Organization. In addition to the front-line players, a number of commentators have highlighted the 'outsized influence' of corporate publishers and corporate philanthropists in policy decisions about OA arrangements in the global North, including Plan S and the Finch Report on Open Access (Harrington, 2019; Okune et al., 2018: 5; Posada and Chen, 2018). The result has been a policy paradox in which efforts to liberate scholarly publishing from the grip of corporate publishers has put corporate publishers at the centre of policy decisions about the design of OA. More systematic attention to the policy process surrounding OA decisions raises new questions about whether prevailing policy coalitions involve alignment of interests, or false friendships and divide-and-rule strategies.

The OA advocate, Tom Wilson, was one of the first to call out the influential role of commercial publishers in shaping OA policy: 'It is, of course, in

the publishers['] interest to encourage the assumption that "gold" involv[e]s user charging …. So perhaps the EU would benefit by having less close ties to the industry and exercising a little more imagination about the options' (Wilson, 2007b). While some point to genuine need to consider the actual costs of publication (see Okune et al., this collection), the inclusion of legacy publishers in high-level OA working groups and coalitions has led research councils and funders to prioritize corporate profits over much lower costs of small academic publishers and society journals (Fuchs and Sandoval, 2013: 433–34; Harrington, 2019). It is not clear that providing public block grants to universities in order to finance 'transformative agreements' with corporate publishers leads to the most judicious use of public funds in the creation of OA systems.

Indeed, the continued high profits of large corporate publishers and the eye-watering costs of APCs in major journals suggest otherwise. Plan S and the UK Finch Report contend that more transparent OA pricing arrangements will drive down the cost of APCs and reduce the drain on public funds (Gowers, 2014; Hall, 2012; Wheatley, 2015). However, the evidence seems to point in the opposite direction. Research by the Universities UK Open Access Coordination Group found that average APCs increased by 16 per cent between 2013 and 2016, with rising impact factors serving to drive APCs up rather than down (Bosch et al., 2019; Fuchs and Sandoval, 2013; Kenneally, 2020). Similarly, 'transformative' agreements between universities and corporate publishers seem to be continuing the tradition of non-transparent and rapacious pricing that characterized the hated Big Deals, making new OA 'Read and Publish' deals anything but transformative (Pooley, 2020; Poynder, 2019). Pooley (2020) points out that signatories to Springer's transformative deals come from countries with an average GDP per capita of US\$ 47,000 per annum — roughly four times the global mean — indicating little difference from those able to afford journal subscription deals. Moreover, the pricing details of these deals are not made public, undermining the transparency that was supposed to drive down APCs.

The high costs of APCs and transformative agreements are also raising questions about the economic sustainability of gold OA, and about its potential to liberate public resources and serve the public good (Fuchs and Sandoval, 2013; Gowers, 2014; Kenneally, 2020; Poynder, 2019). One could argue that APCs are just a different way of 'paying twice' for publicly funded research. In the process, they channel resources from public research into private sector publishing, rather than supporting the valuable externalities of public research and innovation. Concerns are also being raised about whether the policy process driving gold OA is becoming increasingly coercive (Poynder, 2015; Van Noorden, 2020b). On the one hand, momentum for gold OA is driven less by public debate than by arm-twisting initiatives such as Plan S. On the other, academic promotion and university ranking policies in the global South have created further incentives to drive

developing-country researchers into OA systems from which they derive little collective benefit (Chan, 2019; Gray, 2006: 16). As observed by Irawan et al., Berger and others (this collection), instead of using OA to support development priorities and scholarly research needs in the global South, major OA initiatives such as Plan S tend to offer 'a leg up to legacy publishers', while exacerbating distortions and inequities in local publishing ecosystems (Pooley, 2020).

These paradoxical policy dynamics raise questions about the nature of coalitions behind OA. Many hard-line OA activists have put their shoulder behind the gold OA initiatives driven by liberalizing governments, research funders and corporate publishers. This special collection examines whether such alliances represent strategic moves on the way to full openness, or corporate capture of the OA agenda. OA activists also tend to lump subscription journals together with profiteering publishers, collectively regarded as enemies of OA. Yet the history, ethos and internal operations of most academic journals, particularly in the social sciences, are quite distinct from the practices of corporate publishers. Most scholarly journals remain mission driven, still run on the voluntary labour of academics, and share a strong commitment to the scholarly commons that lies at the heart of the OA agenda (Fuchs and Sandoval, 2013; Harrington, 2017; MacLeavy et al., 2020; Wheatley, 2015; also see Okune et al. and Kamerlin et al., this collection).

Realizing the vision of equitable scholarly openness may require OA advocates to look beyond a fixation with paywalls and copyrights to examine the underlying ethos of their allies. We need to ask more questions about the forms of OA that nurture academic freedom and innovative public research, rather than coercion and private profit (Kamerlin et al., Anderson, Moore, this collection). While many society and university-run journals are resistant to gold OA and Plan S, they are largely supportive of non-profit scholarly communication. Indeed, strong scholarly societies have been key to keeping journals out of the hands of corporate publishers, while Plan S threatens to push them into corporate hands (Harrington, 2019; Larivière et al., 2015: 10). Far from colluding with corporate interests, many society journals are experimenting with non-commercial OA options such as green or diamond OA (Bosch et al., 2019; Harrington, 2019; MacLeavy et al., 2020). According to a senior publishing official at the American Mathematical Society, Robert Harrington (2017) 'Diamond OA may represent a way for societies to mark out a unique path to success in a way that a commercial enterprise that needs to satisfy shareholder value would be unable to match. Perhaps this is part of the future for society publishers'. Greater attention to the ecosystems of scholarly associations and society journals, with their non-profit, cooperative commitment to the service of the scholarly community, may reveal natural allies for the OA movement within the ranks of subscription journals.

SUMMARY OF ARTICLES

The articles and thought pieces presented here fall into three categories: reflections on the distinctive needs and visions of open access by scholars from various regions of the global South, including Latin America, Asia and Africa; reflections by Northern scholars on the implications of OA and Plan S for the global South more broadly; and reflections by Northern scholars on the costs and benefits of OA and Plan S within their scholarly and disciplinary ecosystems.

Contributions by Shearer and Becerril-García,[5] Irawan et al., Asare et al. and Okune et al. reflect on OA ecosystems and aspirations within their own regions of the global South and consider the implications of Plan S and wider for-profit OA systems. Shearer and Becerril-García draw attention to the strengths of the non-profit OA infrastructures in Latin America, as well as their commitment to 'bibliodiversity' in place of the centralizing tendencies of for-profit infrastructures. Irawan et al. highlight the extensive development of a free-to-read, free-to-publish OA culture in Indonesia, and trace the ways in which new academic promotion policies and pressures from for-profit initiatives threaten to erode Indonesia's dynamic OA environment.

Conversely, contributions by Asare et al. and Okune et al. reflect on the barriers to OA faced by African researchers. Asare et al. undertake a quantitative analysis to show how resource constraints push African researchers in the field of education into low-quality OA journals or high-quality subscription journals. Limited digital infrastructure and poor access to APC fee waivers severely constrain the ability of African researchers to read or publish in prevailing for-profit OA systems. Using novel open science techniques, Okune et al. curate a discussion with African publishers and open science activists to explore the politics of OA on the continent. Austerity-ravaged publishing ecosystems combine with a lack of funding and digital infrastructure to push African OA advocates toward arduous and dependent engagement with European and North American for-profit systems. Okune et al. advocate a re-imagining of OA infrastructures that prioritize the decolonization of knowledge production and are better adapted to infrastructurally challenged, low-resource environments.

Faciolince and Green, Berger, and Sagemüller et al. offer a more overarching view of OA in the global South. All three papers reflect on the capacity of OA initiatives to contribute to epistemic equity in global knowledge production. Faciolince and Green present a web-based discussion with scholars from across the global South to explore the limits of gold OA. They argue that gold OA is a step on the way to realizing a fully open knowledge commons and call for a deeper decolonization of knowledge through the incorporation of non-profit alongside for-profit approaches to OA, and a

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5. This contribution was withdrawn owing to terms of Open Access. It can be accessed here: https://zenodo.org/record/4423997#.X_cbUeBybfY.

dismantling of wider knowledge hierarchies. Berger voices similar equity concerns about gold OA and for-profit infrastructures; she contrasts for-profit OA platforms with non-profit OA infrastructures in Latin America, Asia and Africa, and with the shadowy phenomenon of 'predatory publishing' which uses APCs in the service of scholarly fraud. These are viewed as competing systems of OA rather than as parts of an overarching OA infrastructure. Berger calls for the decolonization of OA itself, through enhanced funding and support for non-profit OA systems emerging from the global South.

Sagemüller et al. delve deeper into the shadow world of black OA through an examination of the role of the pirate site, Sci-Hub, dubbed the 'Robin Hood of Science'. They reflect on the ethics of journal piracy, viewed by some as a disruptor of unjust knowledge hierarchies, and by others as reinforcing the Northern-dominated publishing ecosystem of clicks and impact factors by illicitly widening its market. A quantitative analysis of Sci-Hub downloads from development journals confirms that the removal of paywalls through Sci-Hub fosters a flow of development knowledge from Northern authors to Southern readers. Even in the paywall-free world of black OA, the promise of epistemic justice seems a long way away.

Contributions by Kamerlin et al., Anderson, and Moore examine the controversy triggered by OA initiatives such as Plan S among scholars from the global North. These three articles centre on tensions among OA, academic freedom and policy coercion. Kamerlin et al. reflect on the role of scholarly societies in ecosystems of academic quality and collaboration. They argue that efforts by Plan S to disrupt scholarly ecosystems risk undermining academic freedom and communities of disciplinary expertise, arousing deep concerns among scholars across global regions, across disciplines, and across academic statuses. Anderson takes a systematic look at controversies around the implications of OA for academic freedom. He highlights disputes about copyright licences, the effect of APCs on academic content as well as journal choice, and the role of coercion in the development of OA. By contrast, Moore challenges debates about OA and academic freedom as an attempt by Northern academic elites to protect inequitable knowledge hierarchies. The undesirable elements of Plan S are viewed as imperfect steps on the road to a more radically inclusive global knowledge commons. We are left to reflect on whether epistemic equality is best served by efforts to disrupt and deregulate scholarly ecosystems, or by efforts to strengthen and finance public ecosystems of research and collaboration among scholars, North and South.

RETHINKING OPEN ACCESS

The contributions in this special collection interrogate what a genuinely transformative approach to OA for development researchers in the global

North and South should look like. While some subscribe to the Plan S agenda to promote gold OA as a path to openness and epistemic equality, others question the transformative capacities of a model so heavily influenced by the corporate interests OA sought to circumvent. Questions are raised about the use of OA narratives to channel public funds into the financing of private digital publishing infrastructures. Questions are also raised about how OA visions so totally disconnected from the needs and scholarly infrastructures of the global South can chart a path to equity. Indeed, the viability of gold OA models is increasingly being called into question even in the global North. After pushing back the deadline for full OA to 2024, Plan S has further softened its requirements by eliminating the timetable of full compliance for key hybrid journals, such as *Nature* (Van Noorden, 2020b).

While Robert-Jan Smits, one of the architects of Plan S, regards the COVID-19 crisis as a catalyst for advancing the Plan S agenda, others worry that the ensuing economic contraction may threaten the funding model that drives it forward (Calloway, 2020).The recent announcement by *Nature* of an author charge of € 9,500 (US$ 11,390), billed as a 'long awaited alternative to subscription publishing', heightens concerns about the affordability and accessibility of the Plan S model (Else, 2020). As problems and points of resistance emerge, the coercive undertones of Plan S are intensifying. A recent policy mooted by Plan S to force hybrid journals into compliance by overriding journal copyrights brings the disruptive ethos of Plan S eerily in line with that of Sci-Hub (Van Noorden, 2020a).

Alternative approaches to OA highlight the value of building on non-profit models and OA systems that already exist in the global South as well as within academic systems and scholarly societies. As a number of contributors have suggested, in place of public grants to finance APCs and transformative agreements with corporate publishers, funding could be turned to the much lower costs of diamond OA journals, to upgrading public repositories that already exist within academic institutions, and connecting them through the development of inter-operable digital systems and other scholarly services (see also Shearer 2018). Particularly in the context of global health and economic crises, it is time to widen the debate beyond for-profit systems of gold OA, with a view to exploring the wider range of OA models and infrastructures. More attention is needed to the development of OA arrangements better suited to a decolonized scholarly commons that prioritizes public research needs rather than private gains, fosters transparent and judicious use of public resources, and promotes rather than undermines epistemic equity in relations between Northern and Southern scholars.

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Kate Meagher (K.Meagher@lse.ac.uk) is an Associate Professor at the Department of International Development, London School of Economics, London, UK. She specializes in African informal economies, with recent publications on the politics of smuggling, youth unemployment and political unrest, and the gig economy. Her current research focuses on precarious labour and the social contract.